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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,660	11/20/2001	Mark Myers	017750-507	9021

7590 08/10/2004  
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EXAMINER
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LEE, SHUN K

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/988,660

Applicant(s)

MYERS ET AL.

Examiner

Shun Lee

Art Unit

2878

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 July 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.  
2. ☒ The proposed amendment(s) will not be entered because:  
(a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☒ they raise the issue of new matter (see Note below);  
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.  
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.  
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 4-20.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.  
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.  
10. ☐ Other: \_\_\_\_\_

CONSTANTINE HANNAHER  
PRIMARY EXAMINER  
GROUP ART UNIT 2878

Continuation of 2. NOTE: applicant proposes to include new limitations of "the first MWIR band includes wavelengths of 3 to 5 microns and the second MWIR band includes wavelengths of 3 to 5 microns, the first MWIR band wavelengths differing from the second MWIR band wavelengths" and "the LWIR band of energy includes wavelengths of 8 to 12 microns" and argues that support for these limitations is found in the original claims and paragraph [0024]. Examiner respectfully disagrees. First it should be noted that the first MWIR band wavelengths differing from the second MWIR band wavelengths is inconsistent with the first and second MWIR bands both including wavelengths of 3 to 5 microns. That is, if the first and second MWIR bands have different wavelengths, then both the first and second MWIR bands can not include the same wavelengths of 3 to 5 microns. The specification states (paragraph [0002]) that "The intermediate-infrared radiation region is often further broken into the mid-wave (MWIR) region with wavelength limits of 3-5  $\mu\text{m}$  and the long-wave (LWIR) region with wavelength limits of 8-12  $\mu\text{m}$ " and (paragraph [0024]) that "The first and second aspherical surfaces 214,216 and the HOE 222 combine to manipulate infrared energy from at least two wavebands in the infrared spectrum. In one embodiment, a first waveband is a mid-wave infrared (MWIR) waveband with wavelength of 3-5  $\mu\text{m}$ , preferably 4-4.5  $\mu\text{m}$ , and a second waveband is a mid-wave infrared (MWIR) waveband with wavelength of 3-5  $\mu\text{m}$ , preferably 4-4.5  $\mu\text{m}$ . In a second embodiment, the first and second aspherical surfaces 214,216, the HOE 222, and the detector 208 combine to manipulate infrared energy from at least two wavebands in the infrared spectrum. In this embodiment, a first and second waveband similar to the first embodiment is detected. A detector 208, as described above, can be a detector suitable for hyperspectral imaging and can manipulate and discriminate a third coincident and coregistered waveband. This third waveband may be a LWIR waveband with wavelength of 8-12  $\mu\text{m}$ , preferably 8.5-9.5  $\mu\text{m}$ ". Thus the specification does not provide support for the first MWIR band INCLUDING wavelengths of 3 to 5 microns and the second MWIR band INCLUDING wavelengths of 3 to 5 microns, the first MWIR band wavelengths DIFFERING from the second MWIR band wavelengths, and the LWIR band of energy INCLUDING wavelengths of 8 to 12 microns. Therefore the newly added limitations raises the issue of new matter and also raises new issues which require further consideration and/or search.

Continuation of 5. does NOT place the application in condition for allowance because: of the new matter and new issues noted above. Applicant also argues that the claimed infrared imaging apparatus essentially allows one to place two holographic elements, correcting two different parts of the electro-magnetic spectrum which distinguishes over the prior art since a holographic element has only a limited wavelength range over which it can correct aberrations and cannot correct the aberration of all points on the electro-magnetic spectrum at the same time with the same hologram. Examiner respectfully disagrees. Amos states (column 18, lines 56-60) that "However, binary optics techniques add a notched diffractive component to the refractive lens so that chromatic aberration is corrected. This results in all wavelengths of the light being combined at a point or focus". Thus Amos explicitly teaches chromatic aberration is corrected for ALL wavelengths. Moreover even considering applicant's arguments, it is noted that applicant does not specify what constitutes "a limited wavelength range" and does not explain how the "two different parts of the electro-magnetic spectrum" are both not within the "limited wavelength range".